THOMAS WALMSLEY & SONS LTD

ATLAS FORGE BOLTON LANCASHIRE ENGLAND

> PRODUCERS SINCE 1866 OF



ATLAS
GENUINE HAND PUDDLED
WROUGHT IRON

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Wrought iron can be readily worked, hot or cold, and it may be welded easily by forging or by any other commonly used process; its machining properties are excellent.

There are, of course, cheaper substitutes for wrought iron, and these may at first glance appear a tempting proposition. But, when maintenance and replacement costs are considered, a very different picture is presented, for wrought iron gives you longer and more satisfactory service at a much lower true cost.

On the other hand, where material is likely to be exposed to natural corrosive hazards, it is often unnecessary to go to the great expense of specifying stainless steel or special alloy steel. Genuine wrought iron, with its great ability to resist corrosion, will give long and dependable service with a considerable reduction in cost.

It may be of interest to give a list of some of the more important uses of wrought iron. This list is by no means exhaustive, but serves as a guide to the spheres in which wrought iron is the best material for the job.

Fencing, railing work and gates
Cables for ships, moorings and defence work
Chains, lifting tackle, haulage gear, sling hooks and shackles
Railroad materials, signal and point rodding, levers and
drawbars

Nuts and bolts

General ship-building and fittings

Drop forgings and stampings

Tubes and fittings (especially for underground work)

Railcar accessories and repairs

Boiler stay-bars and tie-bars

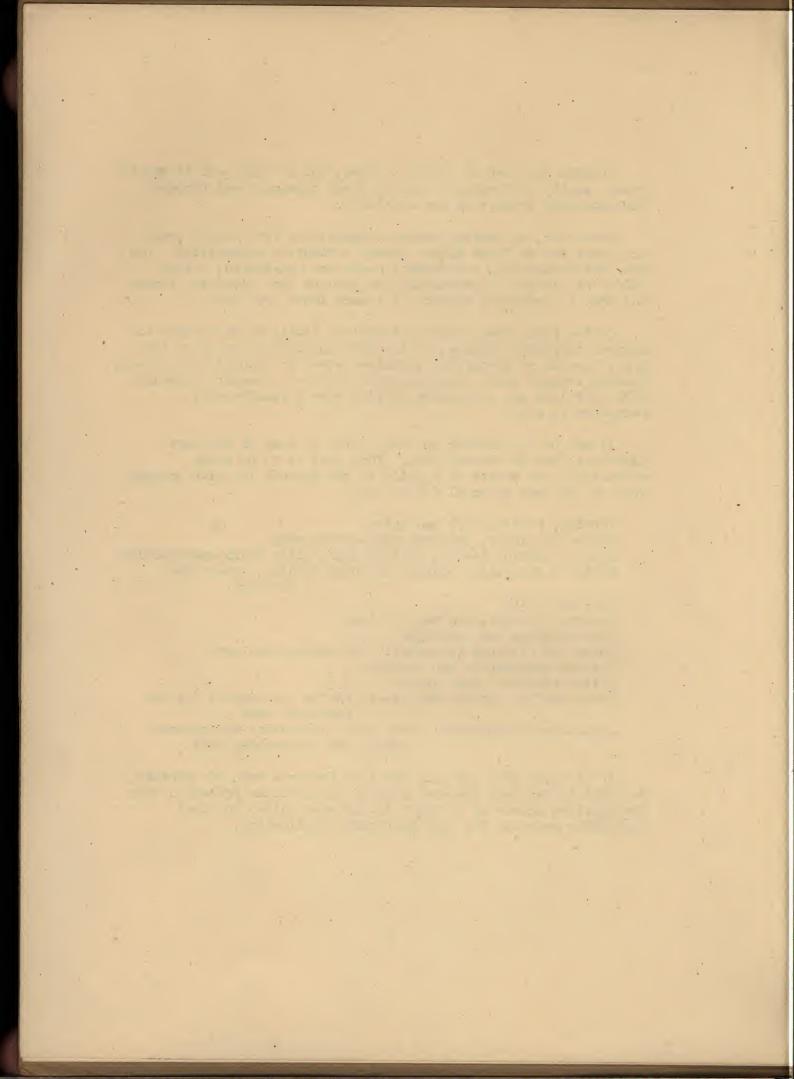
Crank shafts, picking and tappet shafts and general textile

machinery work

Agricultural machinery, horse shoe manufacture and general

smithy and engineering work

It is hoped that not only has this foreword been of interest, but that it may have answered some of the problems presented when the question arises as to which is the best suited and most dependable material for your particular application.



SPECIFICATIONS

Our wrought iron is rolled and supplied to the following specifications

American Society for Testing Materials

American Society of Mechanical Engineers

Association of American Railroads

U.S. Federal Specifications Board

U.S. Coast Guard

U.S. Navy Department

British Standard Specifications

Lloyd's Register of Shipping

Naval Construction Department, Admiralty

British Transport Commission, Railways

Board of Trade

Crown Agents for the Colonies

Mersey Docks and Harbour Board

Institute of Textile Engineers

Institution of Gas Engineers

Indian Railways

South African Railways

Atlas Brands

ROUMES

SOURSES

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FLATS - SQUARE EDGE

			1		
THICKNESS INCHES	WIDTH	WEIGHT LBS. PER FOOT	THICKNESS	WIDTH INCHES	WEIGHT LBS. PER FOOT
3/16 11 11 11 11 11 11 11 11	5/8 3/4 7/8 1 1.1/8 1.1/4 1.3/8 1.1/2	•39 •47 •55 •62 •70 •78 •86	1/4 n n n	5/8 3/4 7/8 1 1.1/8 1.1/4 1.3/8 1.1/2	.52 .63 .73 .93 .94 1.04 1.15
99 99 99 99 99	1.5/8 1.3/4 1.7/8 2 2.1/4 2.1/2 2.3/4 3	1.02 1.09 1.17 1.25 1.41 1.56 1.72 1.87	17 11 11 11 17 17	1.5/8 1.3/4 1.7/8 2 2.1/4 2.1/2 2.3/4	1.35 1.46 1.56 1.67 1.38 2.08 2.29 2.50
			11 11 11 11 11 11	3.1/4 3.1/2 3.3/4 4.1/2 5 5.1/2	2.71
5/16	5/8	•65	3/8	5/8	.78
n n	3/4 7/8	.78 .91 1.04	11 11	3/4 7/8	•94 1 •09 1 •25
17 41 11	1.1/8	1.17 1.30 1.43	10 10	1.1/3 1.1/4 1.3/8	1.41 1.56 1.72
n n n	1.1/2 1.5/8 1.3/4 1.7/8	1.56 1.69 1.82 1.95	19 19 19	1.1/2 1.5/8 1.3/4	1.87 2.03 2.19
n n	2.1/4 2.1/2	2.08 2.34 2.60	11 11	1.7/8 2 2.1/4 2.1/2	2.34 2.50 2.31 3.12
11 11 11	2.3/4 3 3.1/4	2.86 3.12 3.39	11 11	2.3/4 3 3.1/4	3.44 3.75 4.06
69 61 19	3.1/2 3.3/4 4 4.1/2	3.65 3.91 4.17 4.69	n n	3.1/2 3.3/4 4	4.37 14.69 5.00
89 89 82	5.1/2	5.21 5.73 6.25	n n	4.1/2 5 5.1/2	5.62 6.25 6.87
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FLATS - SQUARE EDGE

THICKNESS	WIDTH	WEIGHT LBS. PER FOOT	THICKNESS INCHES	WIDTH	WEIGHT LBS. PER FOOT
7/16	3/4	1.09	1/2	5/8	1.04
n	7/8	1.28	н	3/4	1.25
	1	1.46	n	7/8	1.46
11	1.1/8	1.64	и	1	1.67
n	1.1/4	1.82	*	1.1/8	1.87
. 11	1.3/8	2.01		1.1/4	2.08
n	1.1/2	2.19	H	1.3/8	2.29
# H	1.5/8	2.37	n .	1.1/2	1.50
	1.3/4	2.55	**	1.5/8	2.71 2.92
	1.7/8	2.73 2.92		1.3/4	3.12
#	2.1/4	3.28	17	2	3.33
**	2.1/2	3.65	N	2.1/4	* 3.75
17	2.3/4	4.01	11	2.1/2	4.17
Ħ	3	4.37	89	2.3/4	4.58
n .	3.1/4	4.74	n	3	5.00
Ħ	3.1/2	5.10	11	3.1/4	5.42
#	3.3/4	5 • 47	**	3.1/2	5.83
tt	4	5.83	. 11	3.3/4	6.25
11	4.1/2	6.56	и .	4	6.67
84	5.1/2	7.29	11	4.1/2	7.50
	5.1/2	8.02	10	5	8.33
"	6	8.75	11	5.1/2	9.17
			"	0	10.00
-	*		•		
9/16	3/4	1.41	5/8	3/4	1.56
n	7/8	1.64	n	7/8	1.82
11	1	1 .88	n	1	2.08
10	1.1/8	2.11	11	1.1/8	2.34
It	1.1/4	2.34	*	1.1/4	2.60
n	1.3/8	2.58	W W	1.3/8	2.86
n	1.1/2	2.81	,	1.1/2	3.12
- 11	1.5/8	3.28		1.5/8	3 • 39 3 • 65
Ħ	1.7/8	3.52	n	1.7/8	3.91
17	2	3.75	n	2	4.17
	2.1/4	4.22	n	2 2 . 1/4	4.69
17	2.1/2	4.69	*	2.1/2	5.21
Ħ	2.3/4	5.16	n	2.3/4	5.73
n	3	5.63	H	3	6.25
H	3.1/4	6.09	*	3.1/4	6.77
n	3.1/2	6.56	n	3.1/2	7.29
* *	3.3/4	7.03	Ħ	3.3/4	7.81
n n	4	7.50	11/	4.1/2	8.33
*	4.1/2	8.44	"	4.1/2	9.38
	5.1/2	9.38	n	5.1/2	10.42
n	6	10.31	n	2.1/2	11.46
	0	11.25		6	12.50

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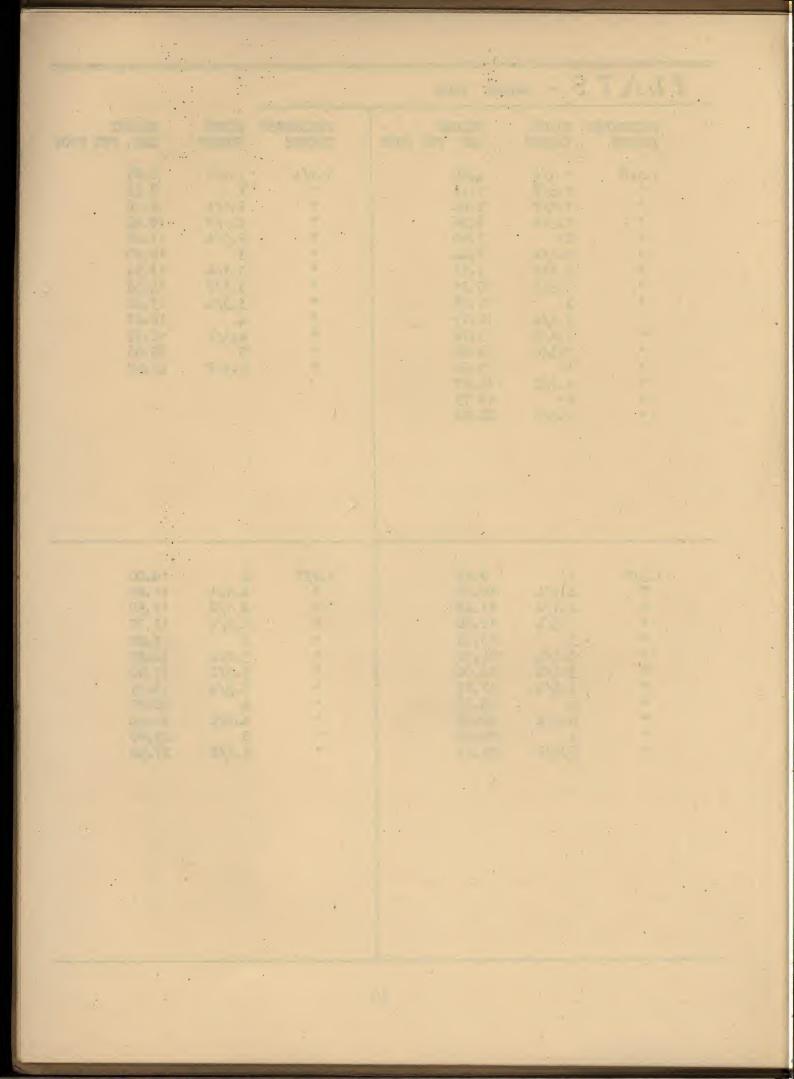
THICKNESS	WIDTH	WEIGHT	THICKNESS	WIDTH	WEIGHT	
INCHES	INCHES	LBS. PER FOOT	INCHES	INCHES	LBS. PER	FOOT
*****	- 10			2.4	- 3.0	
11/16	7/8	2.01	3/4	7/8	2.19	
n	1	2.29	n	1	2.50	
n	1.1/8	2.58 2.86	n	1.1/8	2.81	
11	1.3/8	3.15	n	1.1/4	3.12	
11	1.1/2	3.44	n	1.1/2	3.75	
11	1.5/8	3.72	n	1.5/8	4.06	
**	1.3/4	4.01	H	1.3/4	4.38	
n	2	4.58	Ħ	2	5.00	
n	2.1/4	5.16	n	2.1/4	5.63	
n	2.1/2	5.73	Ħ	2.1/2	6.25	
n	2.3/4	6.30	**	2.3/4	6.88	
11	3	6.88	n	3	7.50	
0	3.1/4	7.45	11	3.1/4	8.13	
**	3.1/2	8.02	n	3.1/2	8.75	
n	3.3/4	8.59	11	3.3/4	9.32	
H	4 4/2	9.17	n	4	10.00	
n	4.1/2	10.31	n	4.1/2	11.25	
11	5.1/2	11.46	"	5	13.75	
n	6	13.75	n	5.1/2	15.00	
	o .	13.13		0	13.00	
* -						
- 40						
7/8	1	2.91	1	1.1/8	3.75	
11	1.1/8	3.28	n	1.1/4	4.17	
n	1.1/4	3.65	11	1.3/8	4.58	
n	1.3/8	4.01	11	1.1/2	5.00	
11	1.1/2	4-37	n	1.5/8	5.42	
n	1.3/4	4.74 5.10	n	1.3/4	5.83	
n	2	5.83	n	2.1/4	6.67 7.50	
11	2.1/4	6.56	11	2.1/2	8.33	
17	2.1/2	7.29	n	2.3/4	9.17	
11	2.3/4	8.02	n	3	10.00	
н	3	8.75	n	3.1/4	10.83	
11	3.1/4	9.48	11	3.1/2	11.67	
**	3.1/2	10.21	Ħ	3.3/4	12.50	
"	3.3/4	10.94	n	4	13.33	
11	4	11.67	IT	4.1/2	15.00	
11	4.1/2	13.12	**	5.1/2	16.67	
n	5.1/2	14.58	17	5.1/2	18.33	
n	6	16.04 17.50	"	6	20.00	
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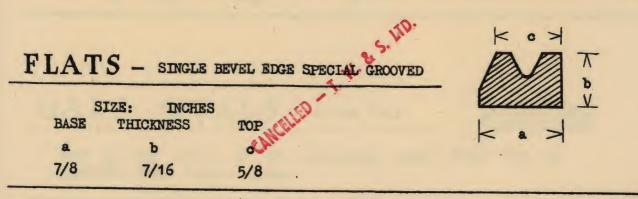
FLATS - SQUARE EDGE

	THICKNESS INCHES	WIDTH INCHES	WEIGHT LBS. PER FOOT	THICKNESS	WIDTH	WEIGHT LBS. PER FOOT
	1.1/8	1.1/4 1.3/8 1.1/2 1.3/4	4.69 5.16 5.62 6.56	1.1/4	1.1/2 2 2.1/4 2.1/2	6.25 8.33 9.38 10.42
	11 11	2 2 . 1/4 2 . 1/2	7.50 8.44 9.37	n n n	2.3/4 3 3.1/4	11 •46 12 •50 13 •54
	#1 #1	2.3/4 3 3.1/4 3.1/2	10.31 11.25 12.19 13.12	n n	3.1/2 3.3/4 4 4.1/2	
	n n n	3.3/4 4.1/2 5.1/2	14.06 15.00 16.87 18.75	H	5 5.1/2	20.83
	n	5.1/2	20.62			
				2	•	
	1.3/8	2 2.1/4 2.1/2	9.16 10.31 11.46	1.1/2	2 2.1/4 2.1/2	10.00 11.25 12.50
-	11 11	2.3/4 3 3.1/4 3.1/2	12.60 13.75 14.90 16.04	19 19 19	2.3/4 3 3.1/4 3.1/2	13.75 15.00
-	11 11 11	3.3/4 4.1/2 5.1/2	17.19 18.33 20.62 22.92 25.21	H H H	3.3/4 4.1/2 5.1/2	18.75 20.00 22.50 25.00 27.50
		30.,-			7.72	



THICKNESS	WIDTH	WEIGHT LBS. PER FOOT	THICKNESS INCHES	WIDTH INCHES	WEIGHT LBS. PER FOOT
1/2	1.3/4 1.7/8	2.69 2.94 3.20	3/4	1.3/4	4.10 4.56 4.78
n .	2.1/4 2.1/2		W. & S. Lill.	2.1/4 2.1/2 2.3/4	5.30 5.96 6.50
			M. 8"	3.1/4	7 •30 7 •75
5/8	1.3/4 1.7/8	3.40 3.76 MICHED 3.98	7/8	2.3/4 3 3.1/4	7.50 8.50 9.00
10 15 11	2.1/4 2.1/2 2.3/4	4.50 5.09 5.50		300,4	,,,,,
n	3 3.1/4	6.10			

FLATS	- DOUBLE	BEVEL EDGE	W. & S. LTD.		T ·
THICKNESS INCHES	WIDTH	WEIGHT LES PER FOOT	THICKNESS	WIDTH INCHES	WEIGHT LBS. PER FOOT
a.	ъ		a	ъ	
5/8	1 1.1/8 1.1/4	2.08 2.34 2.60	3/4 n	1 1.1/8 1.1/4	2.50 2.81 3.13



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HALF DYALE-menu



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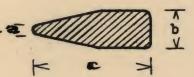
WIDTH	THICKNESS INCHES at ½ width	WIDTH	THICKNESS INCHES at ½ width
2.1/2	3/4 7/8	4	5/8 3/4 7/8
2.3/4	7/8 3/4 7/8 5/8 3/4 7/8 UNICELLED	4.1/2	5/8 3/4 7/8
3 n n	5/8 3/4 7/8	5 "	1 3/4 7/8
3.1/2	5/8 3/4	6	1 1.1/8 5/8
11	7/8	n n	3/4 7/8 1

FIRE BARS

BARS 1.W. & S. LTD.

a SIZE: INCHES

3/8 1 3.1/4



SPECIAL TYRE SECTION



WIDTH INCHES	THICKNES	SS	4.				
6	1/2	3/8	8" radiu	s on	curved	edges	
29	5/8	H Cale H	n	11	11	H	
n	3/4	Pro II	11	11	11	n	
	-,						ě

CONVEX TVRS EGOES





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SPRCIAL TYRE SECTION

BEVELLED STRIP

WIDTH	MINIMUM	
OVERALL	THICKNESS	
INCHES	INCHES	ID.
3.1/8 3.3/16 3.1/4	.139	85.
3.3/16	.139	M.
3.1/4	.139	
3.3/8	·139	
3.3/8 4.1/16	.156	
	CAR	*

KNIFE IRON

T b l

SIZE: INCHES WEIGHT LBS. PER

a b FOOT

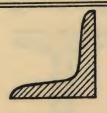
2.1/16 x 1/2 1.716

BEVEL IRON SIZE: INCHES a b c 2.1/8 x 1.7/16 x 1/2

SOCKET STRIP AND RITTING - ----

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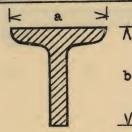
ANGLES



SIZE:		INCHES	WEIGH PER FOOT	T
4.4/1	- 4 4/1	- 3/46	1.45	lbs
1.1/4		$+ \times 3/16$		
11	x "	x 1/4	1.87	11
**	x "	x 5/16	2.28	Ħ
11	x n	x 3/8	2.66	H
				631
1.1/2	x 1.1/2	$2 \times 3/16$	1.76	MCMIED
11	X H	x 1/4	2.29	11
n	x n	x 5/16	2.80	n
11	x "	x 3/8	3.28	* H

SIZI	3:	INCHES	WEIGH PER FOOT	T
1.3/	/4 x 17 -3/ 5 x "	/4 x 1/4 x 5/16 x 3/8	2.71 3.32 3.91	lbs n
2 11 11	x 2 x " x "	x 1/4 x 5/16 x 3/8	3.12 3.84 4.53	11

TEES



SIZE:		ъ	IN	CHES	WEIGHT PER FOOT	
1.1/2	x	1.1/2	x	3/16	1.45	1bs
n	x	11		1/4	2.29	n
n	x	n		5/16	2.80	neille
79	x	11		3/8	3.28	MACE

lbs
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WEIGHTS OF ROUND IRON BARS in pounds per lineal foot

SIZE	WEIGHT POUNDS	S IZE INCHES	WEIGHT POUNDS
3/8 7/16 1/2 9/16 5/8 11/16 3/4 13/16 7/8 15/16 1 1.1/8 1.1/8 1.3/8 1.1/2 1.5/8 1.3/4	.368 .501 .654 .828 1.023 1.237 1.473 1.728 2.004 2.301 2.618 2.956 3.313 3.692 4.091 4.950 5.890 6.913 8.018	1.7/8 2.1/8 2.1/4 2.3/8 2.1/2 2.5/8 2.3/4 2.7/8 3.1/8 3.1/4 3.3/8 3.1/2 3.5/8 3.7/8 4	9.204 10.472 11.82 13.25 14.77 16.36 18.04 19.80 21.64 23.56 25.57 27.65 29.82 32.07 34.40 36.82 39.18 41.89

WEIGHTS OF SQUARE IRON BARS in pounds per lineal foot

SIZE	WEIGHT POUNDS	SIZE INCHES	WEIGHT POUNDS
3/8 7/16 1/2 9/16 5/8 11/16 3/4 13/16 7/8 15/16	.469 .638 .833 1.055 1.302 1.576 1.875 2.201 2.552 2.930 3.333	1.1/4 1.3/8 1.1/2 1.5/8 1.3/4 1.7/8 2 2.1/4 2.1/2 2.3/4	5.208 6.302 7.500 8.802 10.208 11.719 13.333 16.87 20.83 25.21 30.00
1.1/8	4.219		

MILLIMETRES - INCHES

Milli- metres	Inches	Milli- In		illi- Inch	nes Milli metre	i- Inches
1 2 3 4 5 6 7 8 9	0.04 0.08 0.12 0.16 0.20 0.24 0.27 0.31 0.35	39 1 40 1 41 1 42 1 43 1 44 1 45 1	.50 .53 .57 .61 .65 .68 .73 .77	75 2.9 76 2.9 77 3.0 78 3.0 79 3.1 80 3.1 81 3.1 82 3.2 83 3.2	99 230 03 240 07 250 11 260 15 270 19 280 23 290	8.66 9.05 9.45 9.84 10.24 10.63 11.02 11.42 11.81
10 11 12 13 14 15 16 17 18	0.39 0.43 0.47 0.51 0.55 0.59 0.63 0.67 0.71	48 1 49 1 50 1 51 2 52 2 53 2 54 2	.85 .89 .92 .97 .01 .05 .09	84 3.3 85 3.3 86 3.3 87 3.4 88 3.4 89 3.5 90 3.5 91 3.5	35 320 359 330 42 340 46 350 360 360 54 370 58 380	12.20 12.60 12.99 13.38 13.79 14.17 14.57 14.96 15.35
19 20 21 22 23 24 25 26 27	0.75 0.79 0.83 0.87 0.90 0.94 0.98 1.02 1.06	57 2. 58 2. 59 2. 60 2. 61 2. 62 2. 63 2.	.28 .32 .36 .40 .44 .48 1	93 3.6 94 3.7 95 3.7 96 3.7 97 3.8 98 3.8 99 3.9 00 3.9	70 410 74 420 78 430 82 440 86 450 460 470	15.75 16.14 16.53 16.93 17.32 17.72 18.11 18.50 18.90
28 29 30 31 32 33 34 35 36 37	1.10 1.14 1.18 1.22 1.26 1.30 1.34 1.38 1.42 1.46	66 2. 67 2. 68 2. 69 2. 70 2. 71 2. 72 2. 73 2.	,660 1,664 1,72 1,72 1,75 1,79 1,83 1,87 2,6	20 4.7 30 5.1 40 5.5 50 5.9 60 6.3 70 6.6 80 7.0 90 7.4 90 7.4 10 8.2	2 500 600 700 800 9 900 9 1 Metre 8 2 " 7 3 "	19.29 19.68 23.62 27.56 31.50 35.43 39.37 78.74 118.11 157.48

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DECIMAL EQUIVALENTS

1/64 1/32 3/64 1/16 5/64 3/32 7/64 1/8	.0156 .0313 .0469 .0625 .0781 .0938 .1094	33/64 17/32 35/64 9/16 37/64 19/32 39/64 5/8	•5156 •5313 •5469 •5625 •5781 •5938 •6094 •625
9/64 5/32 11/64 3/16 13/64 7/32 15/64 1/4	.1406 .1563 .1719 .1875 .2031 .2188 .2344	41/64 21/32 43/64 11/16 45/64 23/32 47/64 3/4	.6406 .6563 .6719 .6875 .7031 .7188 .7344 .75
17/64 9/32 19/64 5/16 21/64 11/32 23/64 3/8	.2656 .2813 .2969 .3125 .3281 .3438 .3594 .375	49/64 25/32 51/64 13/16 53/64 27/32 55/64 7/8	.7656 .7813 .7969 .8125 .8281 .8438 .8594
25/64 13/32 27/64 7/16 29/64 15/32 31/64 1/2	.3906 .4063 .4219 .4375 .4531 .4688 .4844	57/64 29/32 59/64 15/16 61/64 31/32 63/64	.8906 .9063 .9219 .9375 .9531 .9688 .9844

Bars and sections will be rolled as near as possible to specified weights and dimensions, but a deviation of $2\frac{1}{2}\%$ under or over must be accepted, unless otherwise agreed.

Every care has been taken in the compiling of this schedule, but it is issued without any liability. Where weights per foot are mentioned these must be understood to be approximate only, and although they may be considered generally reliable, no allowances will be made for variations which may occur.

